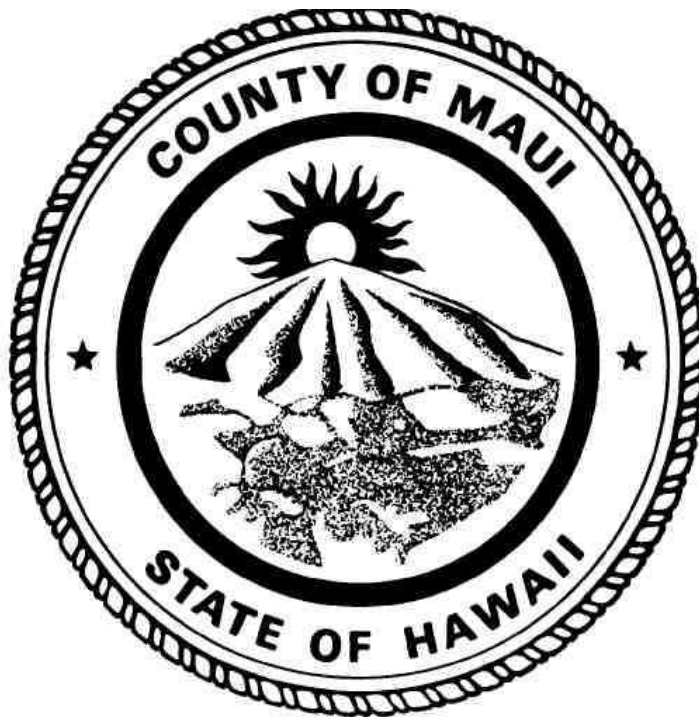


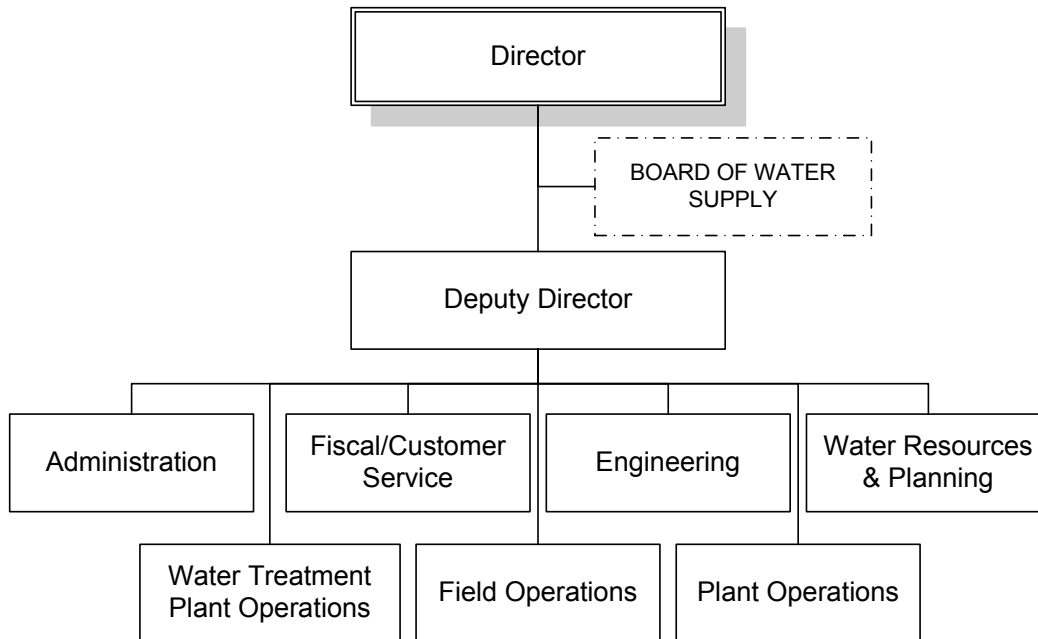
Proposed Budget • Fiscal Year 2007

DEPARTMENT OF  
**Water Supply**



## Department Summary

### Organization Chart



### Mission Statement

The mission of the Department of Water Supply is to provide clean water efficiently.

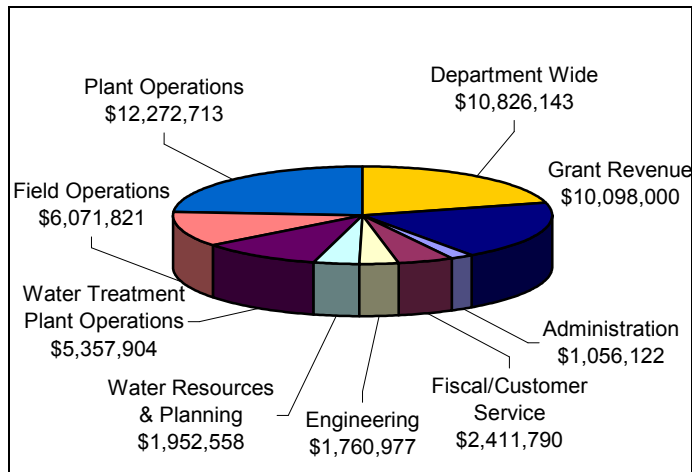
### Financial Summary

	FY 2004 Actual	FY 2005 Actual	FY 2006 Budgeted	FY 2007 Request	Change Amount	% Change
<b>Program Summary</b>						
Water Supply Fund						
Administration	948,181	1,014,887	1,321,160	1,056,122	-265,038	-20.1%
Department Wide	18,573,299	18,436,392	10,555,216	10,826,143	270,927	2.6%
Fiscal/Customer Service	1,775,082	1,810,783	2,109,880	2,411,790	301,910	14.3%
Engineering	736,021	732,209	1,684,331	1,760,977	76,646	4.6%
Water Resources & Planning	1,032,523	1,223,778	1,904,722	1,952,558	47,836	2.5%
Water Treatment Plant Operations	3,366,409	3,633,376	4,728,385	5,357,904	629,519	13.3%
Field Operations	4,546,124	4,606,908	5,091,279	6,071,821	980,542	19.3%
Plant Operations	7,298,543	8,710,377	8,796,012	12,272,713	3,476,701	39.5%
Subtotal	38,276,182	40,168,710	36,190,985	41,710,028	5,519,043	15.2%
Grant Revenue						
Administration	0	156,268	150,000	0	-150,000	-100.0%
Water Resources & Planning	0	0	273,000	10,098,000	9,825,000	3598.9%
Subtotal	0	156,268	423,000	10,098,000	9,675,000	2287.2%
<b>Total</b>	<b>38,276,182</b>	<b>40,324,978</b>	<b>36,613,985</b>	<b>51,808,028</b>	<b>15,194,043</b>	<b>41.5%</b>

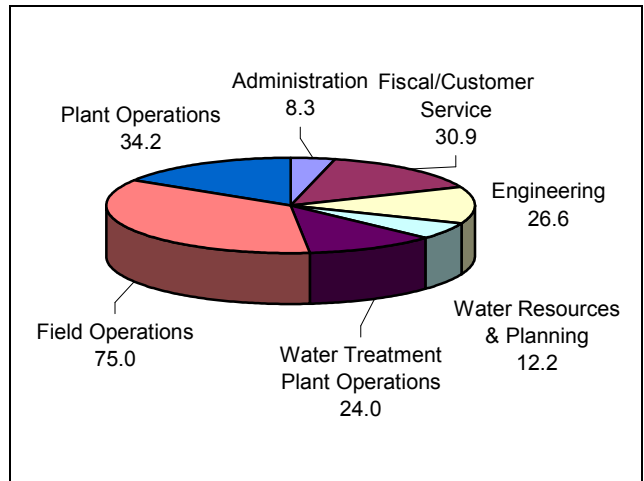
# DEPARTMENT OF WATER SUPPLY

## Department Summary

### FY 2007 Budget by Program



### FY 2007 Budgeted Personnel Summary



### Equivalent Personnel Position Summary

	FY 2004 Actual	FY 2005 Actual	FY 2006 Budgeted	FY 2007 Request	Change Amount	% Change
Water Supply Fund						
Administration	9.3	7.3	8.3	8.3	0.0	n/a
Fiscal/Customer Service	30.8	30.9	30.9	30.9	0.0	n/a
Engineering	23.5	26.6	26.6	26.6	0.0	n/a
Water Resources & Planning	8.0	12.2	12.2	12.2	0.0	n/a
Water Treatment Plant Operations	25.0	24.0	24.0	24.0	0.0	n/a
Field Operations	69.0	74.0	75.0	75.0	0.0	n/a
Plant Operations	31.0	32.2	34.2	34.2	0.0	n/a
Subtotal	196.6	207.2	211.2	211.2	0.0	n/a
<b>Total</b>	196.6	207.2	211.2	211.2	0.0	n/a

Equivalent Personnel (E/P) = Full-time equivalents of full- and part-time personnel.

## Administration Program

### *Program Description*

The director and deputy director manage the Administration Division. This division manages and controls all water systems of the County on a day-to-day basis, which includes overseeing all DWS functions and keeping staff focused on “providing clean water efficiently.” The Administration Division recommends rules and regulations for adoption by the mayor and County Council. The division is in charge of human resources, community relations, and technical interpretation of legal issues. The Administration Division also provides water education.

### *Goals*

- Clearly communicate information concerning water issues to the public
- Keep all DWS employees up-to-date with the latest technology for appropriate and efficient job performance
- Provide support to Board meetings and other activities

### *Objectives for Fiscal Year 2007*

- Schedule public meetings and classroom visits for public education and discussion
- All divisions – Attend technical and water related conferences and seminars
- All divisions – Participate in or attend Board meetings, field trips, and other departmental activities

### *Performance Measures*

	<b>FY05 Actual</b>	<b>FY06 Projection</b>	<b>FY07 Projection</b>
▪ Approximate number of people attending public information meetings	640	400	500
▪ Number of children receiving classroom information	180	200	250
▪ Number of staff attending technical and water related conferences or seminars	103	100	100
▪ Number of hours of training per year	1,726	1,228	1,250
▪ Percentage of total staff in attendance	62%	60%	60%
▪ Number of Board meetings, field trips, and other activities requiring staff support	38	35	35

### *Accomplishments for Calendar Year 2005*

- Flushing positions created and filled for Upcountry water quality improvement
- New deputy director hired
- Staff newsletter started after 1-1/2 year hiatus
- Participation in community meetings in Paia, Kula, Olinda and others

**Administration Program****Major Fiscal Year 2007 Budget Items**

- Salaries and wages in the amount of \$487,492
- Operational expenses for the electricity in the amount of \$70,000, fringe benefits in the amount of \$3,869,029, and debt service expenses in the amount of \$5,881,025
- Equipment purchase to upgrade existing computers in the amount of \$7,500

**Expenditure Summary**

	<b>FY 2004 Actual</b>	<b>FY 2005 Actual</b>	<b>FY 2006 Budget</b>	<b>FY 2007 Request</b>	<b>Change Amount</b>	<b>% Change</b>
Water Supply Fund						
Salaries and Wages	348,889	378,200	443,020	487,492	44,472	10.0%
Operations	597,270	636,126	871,340	561,130	-310,210	-35.6%
Equipment	2,022	561	6,800	7,500	700	10.3%
Program Total	948,181	1,014,887	1,321,160	1,056,122	-265,038	-20.1%
Grant Revenue						
Operations	0	156,268	150,000	0	-150,000	-100.0%
Program Total	0	156,268	150,000	0	-150,000	-100.0%
<b>Equivalent Personnel</b>						
Water Supply Fund	9.3	7.3	8.3	8.3	0.0	n/a

Equivalent Personnel (E/P) = Full-time equivalents of full- and part-time personnel.

**Department Wide Expense / Revenue Fund Balance Sheet**

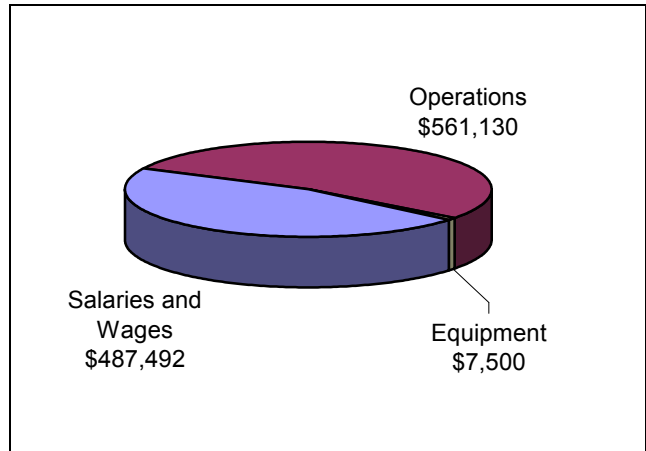
	<b>FY 2004 Actual</b>	<b>FY 2005 Actual</b>	<b>FY 2006 Budget</b>	<b>FY 2007 Request</b>	<b>Change Amount</b>	<b>% Change</b>
Water Supply Fund						
Debt Service	6,044,177	4,707,794	6,056,425	5,881,025	-175,400	-2.9%
Insurance	150,000	211,760	250,000	250,000	0	n/a
Overhead Charges	218,562	229,953	291,368	326,089	34,721	11.9%
Employee Benefits	2,166,367	2,601,549	3,457,423	3,869,029	411,606	11.9%
Refund for Mainline Exp.	429,403	371,999	500,000	500,000	0	n/a
Departmental Costs	9,564,790	10,313,337	0	0	0	n/a
Program Total	18,573,299	18,436,392	10,555,216	10,826,143	270,927	2.6%

Administration Program

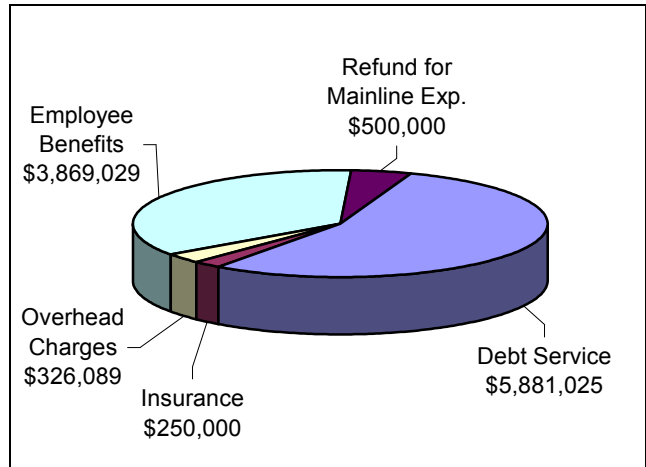
**Personnel Position Summary**

Position Title	FY 2007	
	Permanent	LTA
Administrative Officer	1.0	
Commission Support Clerk	1.0	
Departmental Personnel Clerk	1.0	
Deputy Director	1.0	
Director	1.0	
Private Secretary	1.0	
Safety Officer	1.0	
Secretary III	1.0	
Student Intern	0.3	
<b>TOTAL</b>	<b>8.3</b>	<b>0.0</b>

**FY 2007 Budget by Expenditure  
ADMINISTRATION PROGRAM**



**DEPARTMENT WIDE EXPENSE / REVENUE  
FUND BALANCE SHEET**



## Fiscal/Customer Service Program

### *Program Description*

The Fiscal Division administers the affairs of the accounting section and the customer service/billing section. Under the supervision of the fiscal officer, the division provides the department with financial information; budget development and control; customer service and subsidiary billing, maintenance, and reporting for its 30,000+ services; central purchasing and vendor payment processing and reconciliation; and payroll processing, financial summaries and reports for management and its Board while adhering to government and utility accounting standards.

### *Goals*

- Maintain the Department of Water Supply's financial soundness as demonstrated by an annual independent audit with a clean opinion and no significant findings.
- Provide professional and timely service to external customers i.e., installations and transfers, closing bills, payment options, history, and tracking.
- Provide efficient and courteous service to internal customers by expediting the processing of purchase orders, travel authorizations, and inventory.

### *Objectives for Fiscal Year 2007*

- Prepare and review monthly financials and submit quarterly financials to the mayor and Board
- Review annual audit and immediately rectify significant findings
- Review processes quarterly to ensure proper classification of transactions and to recommend improvement
- Review payments efficiently from front office, service center, credit cards, and automatic bill payment
- Provide efficient service to customers for processing of account transfers and equipment installations
- Promptly generate purchase orders for all divisions
- Provide internal customers with supplies needed for efficient job performance
- Streamline warehouse operations

### *Performance Measures*

	FY05 Actual	FY06 Projection	FY07 Projection
▪ Compilation of internal monthly financial statements	75%	100%	100%
▪ Quarterly reports – completed within 6 weeks after quarter end	80%	100%	100%
▪ Number of processing errors found	5	0	0
▪ Number of processes improved	0	2	2

**Fiscal/Customer Service Program**

***Performance Measures (Continued)***

	<b>FY05 Actual</b>	<b>FY06 Projection</b>	<b>FY07 Projection</b>
▪ Number of cash register payments processed	19,539	18,000	20,000
▪ Number of service center payments processed	3,840	2,000	2,000
▪ Number of credit card payments processed	0	500	500
▪ Number of automatic bill payments processed	13,925	5,000	14,000
▪ Number of meters locked	125	1,200	500
▪ Number of transfers	2,913	3,500	3,000
▪ Number of installations	943	3,400	1,000
▪ Length of time to process installations	2 days	1-2 days	1-2 days
▪ Number of purchase orders processed	1,198	1,500	1,200
▪ Turn around time for purchase orders	1 day	2 days	1 day
▪ Number of stores requisitions issued	3,544	3,500	3,600
▪ Reduced dollar value of year end inventory shortage	n/a	\$1,000	\$1,000
▪ Random samplings of warehouses	3	2	2

***Accomplishments for Calendar Year 2005***

- The accounting section completed implementation of the fixed asset system with automatic generation of monthly depreciation/amortization schedules for all assets over \$5,000 and tracking of all 7,700 fixed assets and items over \$500
- The accounting section assisted the County payroll team in the implementation of the County's new payroll system
- The Annual Audit for FY2005 had no exceptions. This is the third year in a row the department has had a "clean audit"
- The purchasing section converted all base yards to "mini storerooms" in the IFAS Stores Inventory Subsystem and created an accountable and reconcilable environment for all inventoried items. The warehouses continue to reorganize to enhance operational efficiencies. In conjunction with the County's Purchasing Division, the purchasing section has implemented the use of credit cards for travel. This section will continue with the revision of the DWS Purchasing Manual



**Fiscal/Customer Service Program*****Accomplishments for Calendar Year 2005 (Continued)***

- Customer Service has completed scanning approximately 85% of the customer records. The automated meter inventory system on CAS is in full use. We are working closely with finance to pursue implementation of a credit card payment option and hope to implement this in FY2006
- R.W. Beck completed the 2004 Water Rate Study and supported the department in its implementation of a 12% rate increase. The study also provided the department with a financial model to be used for forecasting purposes. The next phase of the R.W. Beck study will focus on Customer Class/Conservation rates

***Major Fiscal Year 2007 Budget Items***

- Salaries and wages in the amount of \$1,355,840
- Operational expenses for the water meter inventory in the amount \$500,000, and stores inventory expense in the amount of \$200,000
- Equipment purchase of three replacement Orion handhelds in the amount of \$15,000

***Expenditure Summary***

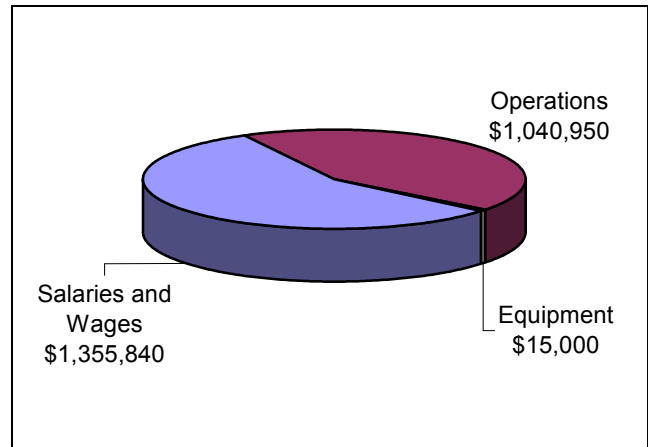
	<b>FY 2004 Actual</b>	<b>FY 2005 Actual</b>	<b>FY 2006 Budget</b>	<b>FY 2007 Request</b>	<b>Change Amount</b>	<b>% Change</b>
Water Supply Fund						
Salaries and Wages	972,153	996,641	1,211,980	1,355,840	143,860	11.9%
Operations	740,486	777,403	824,000	1,040,950	216,950	26.3%
Equipment	62,443	36,739	73,900	15,000	-58,900	-79.7%
Program Total	1,775,082	1,810,783	2,109,880	2,411,790	301,910	14.3%
<b>Equivalent Personnel</b>						
Water Supply Fund	30.8	30.9	30.9	30.9	0.0	n/a

Equivalent Personnel (E/P) = Full-time equivalents of full- and part-time personnel.

## Fiscal/Customer Service Program

*Personnel Position Summary*

Position Title	FY 2007	
	Permanent	LTA
Account Clerk III	2.0	
Accountant I	1.0	
Accountant II	2.0	
Accountant III	2.0	
Assistant Fiscal Officer	1.0	
Buyer II	1.0	
Cashier II	2.0	
Clerk II	1.0	
Customer Relations Assistant	1.0	
Customer Service Representative II	3.0	
Fiscal Officer	1.0	
Fiscal Student Intern	0.9	
Meter Reader/Collector	6.0	
Pre-Audit Clerk II	3.0	
Purchasing Specialist IV	1.0	
Storekeeper II	1.0	
Storekeeper III	1.0	
Supervising Meter Reader	1.0	
<b>TOTAL</b>	<b>30.9</b>	<b>0.0</b>

*FY 2007 Budget by Expenditure*

## Engineering Program

### Program Description

The Engineering Division reviews subdivisions, building permits, and water service applications for conformity with department standards; administers capital improvement projects; prepares plans and specifications for capital improvement projects; oversees consultant contracts for capital improvement projects; prepares and administers agreements with public agencies and private developers; develops and maintains water supply standards; conducts feasibility studies for capital improvement projects; provides engineering support for other divisions of the department; oversees inspection of all construction projects involving improvements to the department's water system; and advises the public on issues related to subdivision, building permits, and water meter applications.

### Goals

- Provide for adequate sources of potable water for the County of Maui
- Provide for adequate storage facilities to serve the County of Maui
- Provide for adequate transmission and distribution infrastructure to provide water service

### Objectives for Fiscal Year 2007

- Develop surface water sources to meet demand
- Develop ground water sources to meet demand
- Develop and replace antiquated pipelines
- Develop and replace storage tank facilities
- Provide assistance to the general public

### Performance Measures

	FY05 Actual	FY06 Projection	FY07 Projection
Develop surface water sources			
▪ Dollar value of design projects encumbered	\$0	\$500,000	\$250,000
▪ Dollar value of construction projects encumbered	\$0	\$1,000,000	\$0
▪ Number of projects in design phase	0	n/a	1
▪ Number of projects in construction phase	1	n/a	0
Develop ground water sources			
▪ Dollar value of design projects encumbered	\$216,980	\$1,050,000	\$650,000
▪ Dollar value of construction projects encumbered	\$0	\$6,960,000	0
▪ Number of projects in design phase	6	n/a	2
▪ Number of projects in construction phase	4	n/a	0

## Engineering Program

**Performance Measures (Continued)**

	<b>FY05 Actual</b>	<b>FY06 Projection</b>	<b>FY07 Projection</b>
Replace inadequate and/or deteriorated transmission and distribution systems			
▪ Dollar value of design projects encumbered	\$50,000	\$530,000	\$0
▪ Dollar value of construction projects encumbered	\$0	\$3,651,000	\$0
▪ Number of projects in design phase	12	n/a	0
▪ Number of projects in construction phase	10	n/a	0
Tank replacement			
▪ Dollar value of design projects encumbered	\$131,630	\$0	\$1,040,000
▪ Dollar value of construction projects encumbered	\$0	\$3,550,000	\$0
▪ Number of projects in design phase	2	n/a	4
▪ Number of projects in construction phase	0	n/a	0
Provide assistance to the general public			
▪ Number of subdivision applications received	117	140	140
▪ Number of subdivision applications approved	10	25	25
▪ Number of building permits received	3,500	3,000	3,000
▪ Number of building permits approved	1,057	1,000	1,000
▪ Number of construction plans received	114	180	180
▪ Number of construction plans approved	15	60	60
▪ Number of phone calls requiring engineering assist/day	10	10	10

**Accomplishments for Calendar Year 2005**

- Ainakula Road and Haleakala Highway Waterline Replacement Project (Kula, Maui)
- Front Street Waterline Replacement-Kahoma Stream to Baker Street (Lahaina, Maui)
- Honokohau Water Transmission Project (Honokahua, Maui)
- Iao Tank Site Exploratory Well (Wailuku, Maui)
- Kalanikahua Waterline Replacement (Haiku, Maui)
- Kamole Water Treatment Facility- Traveling Screen (Makawao, Maui)

## Engineering Program

### Accomplishments for Calendar Year 2005 (Continued)

- Lower Kula (Piiholo) Reservoir (Kula, Maui)
- Lower Kula Road Waterline Replacement- Kai-Nana to Naalae (Kula, Maui)
- Lower Olinda Road Waterline Replacement (Makawao, Maui)
- Wailuku Heights Waterline Replacement (Wailuku, Maui)

### Major Fiscal Year 2007 Budget Items

- Salaries and wages in the amount of \$1,593,452
- Operational expenses for gasoline, diesel and oil in the amount of \$13,000, and computer services in the amount of \$41,000
- Equipment purchase of AutoCad & Traverse PC and Printer in the amount of \$6,000

### Expenditure Summary

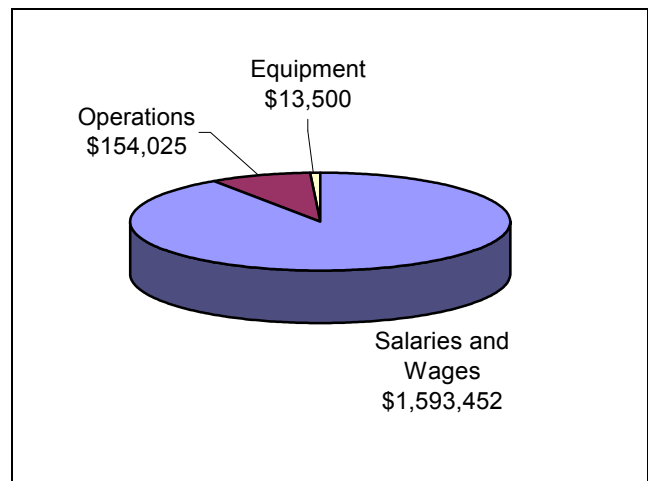
	FY 2004 Actual	FY 2005 Actual	FY 2006 Budget	FY 2007 Request	Change Amount	% Change
Water Supply Fund						
Salaries and Wages	608,348	554,401	1,499,156	1,593,452	94,296	6.3%
Operations	86,314	129,791	123,175	154,025	30,850	25.0%
Equipment	41,359	48,017	62,000	13,500	-48,500	-78.2%
Program Total	736,021	732,209	1,684,331	1,760,977	76,646	4.6%
<b>Equivalent Personnel</b>						
Water Supply Fund	23.5	26.6	26.6	26.6	0.0	n/a

Equivalent Personnel (E/P) = Full-time equivalents of full- and part-time personnel.

### Personnel Position Summary

Position Title	FY 2007	
	Permanent	LTA
Civil Engineer III	2.0	
Civil Engineer IV	4.0	
Civil Engineer V	3.0	
Civil Engineer VI	3.0	
Engineering Aide II	1.0	
Engineering Aide IV	1.0	
Engineering Drafting Aide III	2.0	
Engineering Program Manager	1.0	
Engineering Student Intern	0.6	
Engineering Support Technician I	1.0	
Land Use Permit Clerk	3.0	
Supervising Engineering Aide	1.0	
WW Inspector II	4.0	
<b>TOTAL</b>	26.6	0.0

### FY 2007 Budget by Expenditure



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**Water Resources & Planning Program*****Program Description***

The Water Resources and Planning Division handles long range planning, resource protection, water quality functions and discretionary permit review for the department.

Planning functions include development of the long- and mid-range capital improvement program; coordination of the short-range CIP prior to implementation; development of the department's long-range master plan in compliance with state guidelines; demand forecasting; and development of information systems such as the GIS, hydraulic model, forecast model, CIP and resource data bases for the department.

Water quality functions include tracking of regulatory requirements; planning, preparation and studies necessary to meet these requirements, some aspects of implementation and tracking as assigned, and the protective programs mentioned below.

Discretionary reviews include state district boundary amendments, community plan amendments, change in zoning, special management area permits, special and conditional use permits, environmental assessments, well construction permits and other discretionary approvals, as well as comments and testimony prepared as appropriate for County or state legislation. The division provides comments to the appropriate agencies as well as educational materials to the applicants on best management practices for conservation and water pollution prevention for the type of project.

Resource management functions include tracking water commitments, demands of anticipated projects and other measures, as well as proactive resource protection measures such as: participation in the development and implementation of watershed protection partnerships; drafting and management of contracts for protection and monitoring of water resources; development of a source water protection program; and development, implementation and tracking of conservation programs, educational materials and outreach.

***Goals***

- Provide master, area and capital planning to support state, County and department goals and objectives relative to water supply, demand, infrastructure and resource protection
- Provide responsive and efficient permit and environmental review and other information services to other agencies, divisions and public
- Provide planning support and research necessary for regulatory compliance and to support maximal water quality
- Protect Maui County's water resources, conserve water, and prevent contamination or degradation of water quality and quantity
- Develop and maintain planning information systems as needed to support ongoing planning efforts and projects of the department

***Objectives for Fiscal Year 2007***

- Complete 60% of the Water Use and Development Plan, including completion of Central Maui, Upcountry and Lanai chapters, with West Maui and East Maui started
- Update long-range capital program to reflect benefit cost analysis of various source options for Central and Upcountry Maui, including expanded investment in demand side source options should these prove appropriate

## Water Resources & Planning Program

### Objectives for Fiscal Year 2007 (Continued)

- Provide prompt and thorough response on permits, environmental documents and other submittals. Use the data submitted to help demand tracking. Use the opportunity for response to do some public education on conservation measures and best management practices for resource protection
- Update GIS and hydraulic model data bases, and start calibration for hydraulic model areas. This will depend upon adequate staffing. Complete premise to TMK database matching
- In terms of department programs and policy proposals: complete public process work with Molokai community to finalize wellhead protection proposal and ordinance. Develop and reach at least 50% completion on well-siting policy. Revisit the question of availability policy. Update landscape conservation ordinance and propose it to Council, or work with council members to draft and implement improved outdoor conservation program
- Continue and expand public conservation outreach. Continue advertisement, fixture distribution and other programs. Expand program to enhance leak detection efforts and to implement measures as recommended in cost-benefit analysis ongoing with Water Use & Development Plan process
- Continue regular maintenance of multiple databases on resources, demands, infrastructure, conservation measures, and other items
- Provide for watershed protection, resource monitoring and protection and study of resources by encumbering contracts as listed

### Performance Measures

	FY05 Actual	FY06 Projection	FY07 Projection
▪ Water Use and Development Plan - percent complete	16%	26%	60%
▪ Wellhead protection program - percent complete	56%	85%	100%
▪ Capital program update (annual)	100%	100%	100%
▪ Capital program update (based on WUDP results)	n/a	n/a	50%
▪ Premise ID to TMK matching	n/a	75%	100%
▪ Well-Siting policy proposal	n/a	10%	75%
▪ Outdoor conservation program	Education	Education	25%
▪ Hydraulic model calibration	0%	0%	15%
▪ Regular database updates	100%	100%	100%

**Water Resources & Planning Program****Performance Measures (Continued)**

	<b>FY05 Actual</b>	<b>FY06 Projection</b>	<b>FY07 Projection</b>
▪ Fixture distribution			
Showerheads	3,140	2,500	2,500
*Bathroom faucet aerators	3,962	2,500	2,500
*Kitchen faucet aerators	2,242	2,500	2,500
Hose Nozzles	2,246	2,500	2,500
▪ Advertising			
Radio	3,754	2,500	2,500
Newspaper	165	100	150
Events	5	6	10
▪ Resource Protection Contracts & Grants			
USGS - Monitor Iao, & Waihee Aquifers & Opana Tunnel at Kailili	24,900	25,000	25,000
USGS/CWRM - Ground Water Model	153,000	128,000	12,500
USGS - Stream Monitoring & Aquatic Ecology Study - West Maui	0	0	100,000
USGS / CWRM - Groundwater Level Monitoring	0	0	8,000
USGS - Stream Gauge Program	0	8,000	50,000
RC&D / Misc - Miconia Removal	250,000	250,000	250,000
TNC - East Maui Partnership - Watershed Management	100,000	100,000	100,000
East Maui Watershed Partnership - Watershed Management	15,000	100,000	100,000
West Maui P`Ship - Watershed Management	50,000	75,000	75,000
Leeward Haleakala Forest Restoration Partnership	15,000	25,000	15,000
Maui Nui Botanical Gardens	0	50,000	50,000
Molokai P`Ship - Watershed Mgmt	35,000	40,000	40,000
Resource Monitoring & Protection Allowance	25,000	25,000	10,000

\* May reduce distribution of these fixtures if benefit costs look poor due to federal regulations on manufacture of faucets

**Accomplishments for Calendar Year 2005**

- Sent draft of Lanai WUDP to Lanai Water Advisory Committee
- \$728,000 in resource protection, monitoring and conservation funded
- Completed preliminary field data survey research for Molokai wellhead protection program
- Continued regular work on reviews, data maintenance and expansion, conservation, etc.



# Water Resources & Planning Program

## Major Fiscal Year 2007 Budget Items

- Salaries and wages in the amount of \$550,058
- Operational expenses for electricity in the amount of \$36,000, and professional services in the amount of \$285,500
- Equipment purchase of software license renewals and upgrades in the amount of \$14,000

## Expenditure Summary

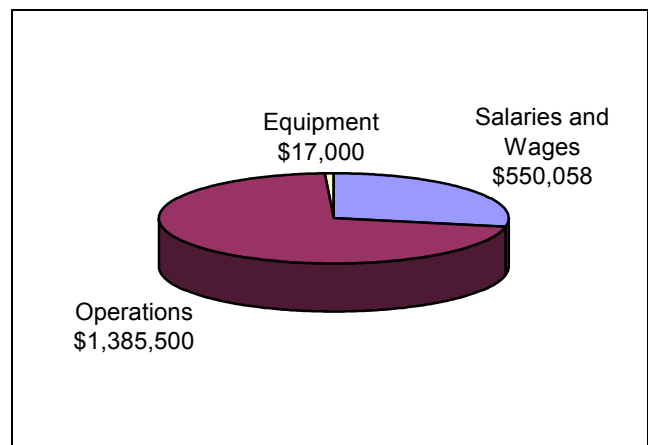
	FY 2004 Actual	FY 2005 Actual	FY 2006 Budget	FY 2007 Request	Change Amount	% Change
Water Supply Fund						
Salaries and Wages	149,213	241,532	515,022	550,058	35,036	6.8%
Operations	842,333	971,442	1,350,200	1,385,500	35,300	2.6%
Equipment	40,977	10,804	39,500	17,000	-22,500	-57.0%
Program Total	1,032,523	1,223,778	1,904,722	1,952,558	47,836	2.5%
Grant Revenue						
Operations	0	0	273,000	98,000	-175,000	-64.1%
Capital Improvement Project	0	0	0	10,000,000	10,000,000	n/a
Program Total	0	0	273,000	10,098,000	9,825,000	3598.9%
Equivalent Personnel						
Water Supply Fund	8.0	12.2	12.2	12.2	0.0	n/a

Equivalent Personnel (E/P) = Full-time equivalents of full- and part-time personnel.

## Personnel Position Summary

Position Title	FY 2007	
	Permanent	LTA
Clerical/Data Technician	1.0	
College Student Intern	1.2	
Conservation Specialist	1.0	
Hydrogeologist III	1.0	
Planner Aide	1.0	
Planner II	1.0	
Planner III	1.0	
Planner V	1.0	
Planner VI	2.0	
Planning Program Manager	1.0	
Water Resources Planning Clerk	1.0	
<b>TOTAL</b>	<b>12.2</b>	<b>0.0</b>

## FY 2007 Budget by Expenditure



## Water Treatment Plant Operations Program

### Program Description

The Water Treatment Plant (WTP) Operations Division operates and maintains surface water treatment facilities. For the Upcountry area, WTP is in charge of the Kamole Weir microfiltration, the Piihola conventional filter, and the Olinda microfiltration sites. In the Lahaina area, WTP is in charge of the Lahaina microfiltration and the Mahinahina conventional filter sites. In Wailuku, the WTP division operates the microfiltration facility at the Iao Tank site. WTP manages Upcountry water resources and inventories and ensures compliance with federal and state surface water treatment rules and water quality standards. This division also reviews and evaluates pending surface water regulations and their impact on DWS operations. Development and implementation of surface water compliance strategies for surface water are also taken care of by WTP.

### Goals

- Operate the water treatment facilities to supply the highest quality potable water that meets all state and federal drinking water standards
- Achieve the maximum useful life from our existing facilities and equipment through effective preventative maintenance and repair programs
- Review and determine future regulatory compliance requirements that will impact the WTP division and optimize plant performance to meet these higher regulatory standards

### Objectives for Fiscal Year 2007

- Retrofit of the Lahaina WTP microfiltration to newer technology PVDF (polyvinylidene fluoride) membranes
- Add one or more microfiltration units to the Lahaina WTP
- Design the retrofit and expansion of the Mahinahina WTP to submerged membrane technology
- Refurbish the Olinda 8 million gallon reservoir

### Performance Measures

	FY05 Actual	FY06 Projection	FY07 Projection
▪ System outages or water restrictions due to facility shutdown or deficient water quality	0	0	0
▪ Violations received	0	1	0
▪ Number of in-service training sessions attended by staff	24	30	30
▪ Number of emergency repairs	0	2	2
▪ Percentage of scheduled maintenance actually performed on time	100%	80%	90%

## **Water Treatment Plant Operations Program**

### ***Accomplishments for Calendar Year 2005***

- Expansion of the Iao Water Treatment Facility
- Cleaning of the Olinda 8 million gallon reservoir

### ***Major Fiscal Year 2007 Budget Items***

- Salaries and wages in the amount of \$1,301,084
- Operational expenses for diesel in the amount of \$169,000, machinery and equipment replacement parts in the amount of \$180,000, repairs and maintenance costs in the amount of \$300,000, and electricity in the amount of \$2,000,000
- Equipment purchase of self-contained breathing apparatus in the amount of \$27,000

### ***Expenditure Summary***

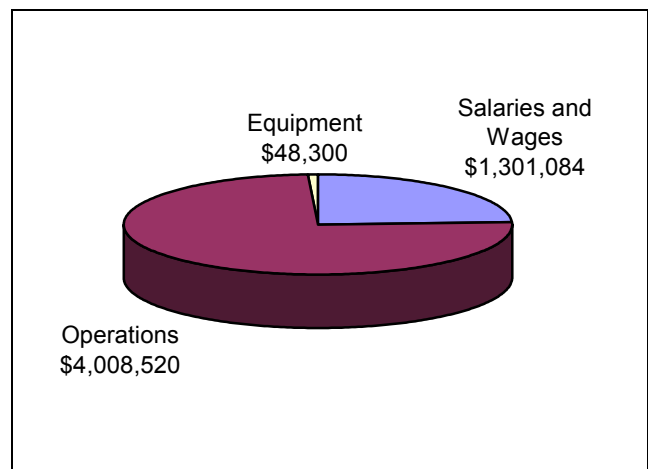
	<b>FY 2004 Actual</b>	<b>FY 2005 Actual</b>	<b>FY 2006 Budget</b>	<b>FY 2007 Request</b>	<b>Change Amount</b>	<b>% Change</b>
Water Supply Fund						
Salaries and Wages	1,000,076	995,111	1,198,285	1,301,084	102,799	8.6%
Operations	2,299,321	2,548,985	3,449,400	4,008,520	559,120	16.2%
Equipment	67,012	89,280	80,700	48,300	-32,400	-40.1%
Program Total	<u>3,366,409</u>	<u>3,633,376</u>	<u>4,728,385</u>	<u>5,357,904</u>	<u>629,519</u>	<u>13.3%</u>
<b>Equivalent Personnel</b>						
Water Supply Fund	25.0	24.0	24.0	24.0	0.0	n/a

Equivalent Personnel (E/P) = Full-time equivalents of full- and part-time personnel.

### ***Personnel Position Summary***

<b>Position Title</b>	<b>FY 2007</b>	
	<b>Permanent</b>	<b>LTA</b>
Asst WTP Operations/Maint. Supervisor	2.0	
Water Treatment Plant Division Chief	1.0	
Water Treatment Plant Maint. Mechanic I	2.0	
Water Treatment Plant Operator II	2.0	
Water Treatment Plant Operator IV	12.0	
Water Treatment Plant Trainee	1.0	
Water Treatment Plant Worker	3.0	
WTP Operations/Maintenance Supervisor	1.0	
<b>TOTAL</b>	<b>24.0</b>	<b>0.0</b>

### ***FY 2007 Budget by Expenditure***



## Field Operations Program

### *Program Description*

The Field Operations Division is in charge of water transmission and distribution which includes responding to consumer complaints; installing, maintaining and replacing pipelines; constructing, maintaining and replacing water storage tanks; fixing main breaks and conducting monthly flushing; and providing support services for vehicles and equipment, fire hydrants, reservoir sites, system hydraulic valves, heavy equipment, carpentry and Badger meter installation.

### *Goals*

- Continue the Upcountry flushing program to meet Department of Health requirements
- Provide timely response to system deficiencies to minimize water loss and consumer complaints
- Participate in capital improvement projects to upgrade and to replace inadequate pipeline distribution systems

### *Objectives for Fiscal Year 2007*

- Provide clean water efficiently
- Respond to mainline breaks and consumer complaints in a timely manner
- Provide a drug-free work place

### *Performance Measures*

	<b>FY05 Actual</b>	<b>FY06 Projection</b>	<b>FY07 Projection</b>
▪ Hydrants flushed in the Upper and Lower Kula systems and Makawao system (number of hydrant flushings)	5,400	13,968	15,000
▪ Number of consumer complaints	2,842	2,873	2,880
▪ Mainline replacement in feet	3,800'	8,660'	9,000'

### *Accomplishments for Calendar Year 2005*

- Responded to 2,842 total complaints
- Replaced 155 services and installed 42 new services
- Responded to 161 mainline failures
- Repaired 427 leaking services
- Repaired 24 hydrants
- Replaced 3,800' of pipeline and cut and plugged 5,830' of pipeline
- Installed 32,800' of new pipeline in various locations including Honokohau to Honokahua Valley and Kahakapao Reservoir to the Piiholo Reservoir
- Dug and laid 1,817' of 24" ductile iron pipe and tied in existing water tank to new 24" water line for the Iao WTP

## Field Operations Program

### *Accomplishments for Calendar Year 2005 (Continued)*

- Laid and fused 4,000' of 3" Drisco pipe, 9,700' of 2" Drisco pipe, and installed new 10,000 gallon tank and pump station for the Honokahua Water Line Project
- Dug and laid 2,082' of 8" ductile iron pipe with 4 hydrant laterals, 4 air relief valve manholes, and 4 double service laterals
- Replaced 1,450 faulty transponders
- Replaced 62 faulty meters
- Maintained vehicle and equipment fleet
- Implemented flushing program

### *Major Fiscal Year 2007 Budget Items*

- Salaries and wages in the amount of \$3,496,633
- Operational expenses for construction materials in the amount of \$500,000, diesel in the amount of \$104,000, store gas inventory in the amount of \$275,000, gasoline, diesel and oil in the amount of \$185,000, meter replacement expenses in the amount of \$200,000, road patching materials in the amount of \$300,000, and electricity in the amount of \$110,000
- Equipment purchase of one replacement and 5 expansion motor vehicles in the amount of \$110,000

### *Expenditure Summary*

	<b>FY 2004</b>	<b>FY 2005</b>	<b>FY 2006</b>	<b>FY 2007</b>	<b>Change</b>	<b>%</b>
	<b>Actual</b>	<b>Actual</b>	<b>Budget</b>	<b>Request</b>	<b>Amount</b>	<b>Change</b>
Water Supply Fund						
Salaries and Wages	2,361,632	2,507,363	3,026,827	3,496,633	469,806	15.5%
Operations	1,725,244	1,914,164	1,840,952	2,427,188	586,236	31.8%
Equipment	459,248	185,381	223,500	148,000	-75,500	-33.8%
Program Total	<u>4,546,124</u>	<u>4,606,908</u>	<u>5,091,279</u>	<u>6,071,821</u>	<u>980,542</u>	<u>19.3%</u>
<b>Equivalent Personnel</b>						
Water Supply Fund	69.0	74.0	75.0	75.0	0.0	n/a

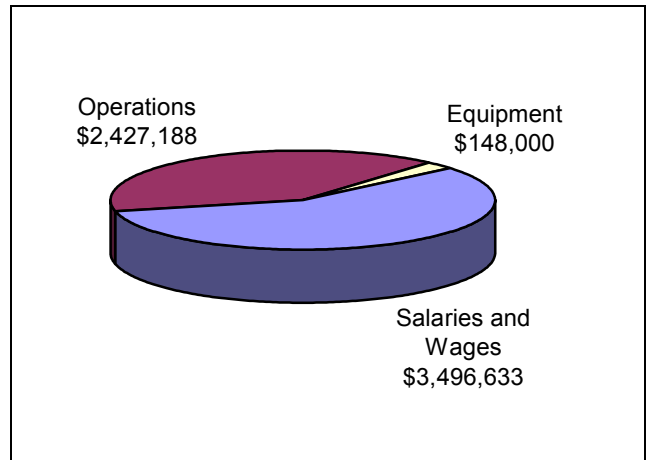
Equivalent Personnel (E/P) = Full-time equivalents of full- and part-time personnel.

Field Operations Program

*Personnel Position Summary*

Position Title	FY 2007	
	Permanent	LTA
Carpenter I	2.0	
Clerk Dispatcher I	1.0	
Clerk III	1.0	
Construction Equipment Mechanic I	3.0	
Construction Equipment Mechanic II	1.0	
Equipment Operator III	3.0	
Equipment Operator IV	4.0	
Field Operations Division Chief	1.0	
Laborer II	6.0	
Pipefitter Helper	15.0	
Pipefitter I	18.0	
Pipefitter II	7.0	
Treasury Clerk I	1.0	
Valve Repair/Pipefitter II	1.0	
Water Meter Mechanic Helper	1.0	
Water Meter Mechanic I	1.0	
Water Meter Mechanic II	1.0	
Water Service Clerk Dispatcher	1.0	
Water Service Supervisor II	5.0	
Water Service Support Supervisor	1.0	
Welder	1.0	
<b>TOTAL</b>	<b>75.0</b>	<b>0.0</b>

*FY 2007 Budget by Expenditure*



## Plant Operations Program

### ***Program Description***

The Plant Operations Division is comprised of four sections: plant maintenance, water quality, SCADA-Telemetry, and backflow prevention. The plant maintenance section operates and maintains groundwater wells and booster pumping facilities. The SCADA-Telemetry section provides ongoing development and support to the supervisory control and data acquisition system that monitors and controls pumping, water treatment facilities, and storage facilities within the distribution system. Both sections also provide electrical and process control support to other divisions. The water quality laboratory tests and ensures that safe drinking water is supplied to our consumers in accordance with current and proposed federal and state water standards. The backflow prevention section installs and inspects backflow units, conducts field surveys, and issues annual inspection notices to insure that backflow units adhere to federal, state, and local standards.

### ***Goals***

- Enhance the quality of water through laboratory testing
- Improve reliability by using state of the art technology
- Maintain and operate pumping facilities efficiently and effectively

### ***Objectives for Fiscal Year 2007***

- Evaluate and improve predictive and preventative maintenance programs by using specialized maintenance data based programs
- Research, implement and coordinate with MIS a wireless communications infrastructure to provide enhanced surveillance and security to the department's critical resources
- Assess and rank all pumping facilities for efficiency and condition
- Upgrade pump controls to provide higher reliability and extended monitoring capabilities
- Improve the laboratory's efficiency by implementing automation
- Replace critical pumping equipment that is at the end stage of its lifecycle

### ***Performance Measures***

	<b>FY05 Actual</b>	<b>FY06 Projection</b>	<b>FY07 Projection</b>
▪ Bacti sampling	2,159	10,000	8,000
▪ Chemistry sampling to meet EPA and DOH requirements	600	10,000	8,000
▪ Total pumping capacity vs. available capacity	N/A	100%	95%
▪ Installation and upgrade of pump controls	N/A	N/A	25

### ***Accomplishments for Calendar Year 2005***

- Automated SCADA controls and monitoring at three Upcountry Hawaiian homelands stations and two Kapalua to Honokohau booster stations

## Plant Operations Program

### *Accomplishments for Calendar Year 2005 (Continued)*

- Installed chlorine analyzers at Kula Kai, Omaopio and the Wailea tank sites for improved water quality real-time monitoring
- Integrated a 10 node terminal server to the SCADA system for improved connectivity and reliability
- Started the refurbished Napili "A" 1 million gallons-per-day well and GAC filtration into operation
- Evaluated and improved operations and maintenance programs
- Provided seamless electrical, mechanical, electronic and computer support to other divisions within the department
- Provided uninterrupted supply of safe drinking water to our consumers through strategic coordination of the operations and maintenance program
- Automated critical reporting data for accuracy and consistency
- Installed new flow metering equipment at multiple well sources to improve accuracy and accountability

### *Major Fiscal Year 2007 Budget Items*

- Salaries and wages in the amount of \$1,700,613
- Operational expenses for repair and maintenance supplies in the amount of \$50,000, diesel in the amount of \$41,600, gasoline, diesel and oil in the amount of \$49,400, and electricity in the amount of \$9,200,000
- Equipment purchase of two replacement vehicles in the amount of \$80,000

### *Expenditure Summary*

	FY 2004	FY 2005	FY 2006	FY 2007	Change	%
	Actual	Actual	Budget	Request	Amount	Change
Water Supply Fund						
Salaries and Wages	984,764	1,123,811	1,474,452	1,700,613	226,161	15.3%
Operations	6,203,805	7,443,436	7,215,160	10,492,100	3,276,940	45.4%
Equipment	109,974	143,130	106,400	80,000	-26,400	-24.8%
Program Total	7,298,543	8,710,377	8,796,012	12,272,713	3,476,701	39.5%
<b>Equivalent Personnel</b>						
Water Supply Fund	31.0	32.2	34.2	34.2	0.0	n/a

Equivalent Personnel (E/P) = Full-time equivalents of full- and part-time personnel.



## Plant Operations Program

*Personnel Position Summary*

Position Title	FY 2007	
	Permanent	LTA
Backflow Control Technician II	1.0	
Backflow Cross Connection Technician IV	1.0	
Clerk III	1.0	
College Student Intern	1.2	
Electronic Technician I	3.0	
Electronic Technician II	1.0	
Laboratory Technician I	2.0	
Plant Elec./Electronic Repairer I	3.0	
Plant Electrician II	1.0	
Plant Operation Division Chief	1.0	
Plant Operations Electrician Supervisor	1.0	
Supervising Electronic Technician	1.0	
Water Microbiologist I	4.0	
Water Microbiologist II	1.0	
Water Microbiologist III	2.0	
Water Microbiologist IV	1.0	
Water Plant Maintenance Mechanic Helper	3.0	
Water Plant Maintenance Mechanic I	5.0	
Water Plant Maintenance Mechanic II	1.0	
<b>TOTAL</b>	<b>34.2</b>	<b>0.0</b>

*FY 2007 Budget by Expenditure*